

**Project WET
Connections to KY
Core Content 4.1**

Molecules in Motion p.47

Elementary

Science

SC-EP-1.1.3

Students will describe the properties of water as it occurs as a solid, liquid or gas.

Matter (water) can exist in different states--solid, liquid and gas. Properties of those states of matter can be used to describe and classify them.

DOK 2

SC-04-1.1.1

Students will explain how matter, including water, can be changed from one state to another.

Materials can exist in different states--solid, liquid and gas. Some common materials, such as water, can be changed from one state to another by heating or cooling. Resulting cause and effect relationships should be explored, described and predicted.

DOK 3

SC-EP-2.3.1

Students will describe earth materials (solid rocks, soils, water and gases of the atmosphere) using their properties.

Earth materials include solid rocks and soils, water and the gases of the atmosphere. Minerals that make up rocks have properties of color, luster and hardness. Soils have properties of color, texture, the capacity to retain water and the ability to support plant growth. Water on Earth and in the atmosphere can be a solid, liquid or gas.

DOK 2

Writing

WR-E-1.2.0

Idea Development/Support: Students will support main ideas and deepen the audience's understanding of purpose by

- Developing logical, justified and suitable explanations
- Providing relevant elaboration
- Explaining related connections or reflections
- Applying idea development strategies appropriate for the form

WR-EP-1.2.3

In Transactive Writing,

- Students will communicate relevant information.
- Students will develop an angle with support (e.g., facts, examples, reasons, visuals).

Students will apply research to support ideas with facts and opinions.

WR-04-1.2.3

In Transactive Writing,

- Students will communicate relevant information to clarify a specific purpose.
- Students will develop an angle with support (e.g., facts, examples, reasons, comparisons, diagrams, charts, other visuals).
- Students will develop explanations to support the writer's purpose.
- Students will apply research to support ideas with facts and opinions.

Students will incorporate persuasive techniques when appropriate (e.g., bandwagon, emotional appeal, testimonial, expert opinion).

WR-05-1.2.3

In Transactive Writing,

- Students will communicate relevant information to clarify a specific purpose.
- Students will develop an angle with support (e.g., facts, examples, reasons, comparisons, diagrams, charts, other visuals).
- Students will develop explanations to support the writer's purpose.
- Students will apply research to support ideas with facts and opinions.

Students will incorporate persuasive techniques when appropriate (e.g., bandwagon, emotional appeal, testimonial, expert opinion).

High School

Science

SC-HS-1.1.3

Students will understand that solids, liquids and gases differ in the distances between molecules or atoms and therefore the energy that binds them together. In solids, the structure is nearly rigid; in liquids, molecules or atoms move around each other but do not move apart; and in gases, molecules or atoms move almost independently of each other and are relatively far apart. The behavior of gases and the relationship of the variables influencing them can be described and predicted.

Extension

Elementary

Arts & Humanities

AH-EP-1.1.1

Students will begin to recognize and identify elements of music using musical terminology.

Elements of music:

Rhythm - bar lines, measures, whole notes, half notes, quarter notes (aurally and visually)

Tempo - steady beat, slower, faster (aurally)

Melody – notes, lines and spaces on treble clef staff (visually)

Harmony - rounds and simple 2-part songs (aurally), songs are major or minor (aurally)

Form - call and response form, AB form and ABA form (aurally)

Timbre (tone color) - recognize different qualities of musical sounds, instruments by family-brass, woodwind, string, percussion (aurally and visually) and human voices (aurally)

Dynamics - soft, loud (aurally)

AH-04-1.1.1

Students will identify or describe elements of music in a variety of music.

DOK 2

Elements of music:

Rhythm - time signature (2/4, 3/4, 4/4), bar lines, rhythmic durations (whole, half, quarter, eighth notes and rests), measure

Tempo - steady beat, slower or faster

Melody - shape, direction (itches move up, down, by step, by skip, stay the same), treble clef sign, pitch notation (notes from middle C to F at top of treble clef staff), high vs. low notes (itches)

Harmony - parts (notes performed together to create harmony), major/minor (aurally); unison (non-harmony)

Form - call and response, two-part (AB), three-part (ABA), round, verse/chorus, repeat signs

Timbre (tone color) - recognize different qualities of musical sounds, orchestral instruments by family - brass, woodwind, string, percussion, how instrument sounds are produced, human voices (high voices, low voices)

Dynamics - soft (*piano* - *p*), medium soft (*mezzo piano* - *mp*), medium loud (*mezzo forte* - *mf*), loud (*forte* - *f*)

AH-05-1.1.1

Students will analyze or explain the use of elements of music in a variety of music.

DOK 3

Elements of music:

Rhythm - time signature (2/4, 3/4, 4/4), bar lines, rhythmic durations (whole, half, quarter, eighth notes and rests), measure

Tempo - steady beat, slow, fast

Melody - shape, direction (itches move up, down, by step, by skip, stay the same), treble clef sign, pitch notation (notes from middle C to F at top of treble clef staff), high notes vs. low notes (itches)

Harmony - parts (notes performed together to create harmony), major/minor (aurally); unison (non-harmony)

Form - call and response, two-part (AB), three-part (ABA), round, verse/chorus, repeat signs

Timbre (tone color) - recognize different qualities of musical sounds, orchestral instruments by family - brass, woodwind, string, percussion, how instrument sounds are produced, human voices (high voices, low voices)

Dynamics - soft (*piano* - *p*), medium soft (*mezzo piano* - *mp*), medium loud (*mezzo forte* - *mf*), loud (*forte* - *f*)

Middle School

Arts & Humanities

AH-06-1.1.1

Students will identify or describe the use of elements in a variety of music.

DOK 2

Elements of music:

Rhythm - syncopation, time signature (2/4, 3/4, 4/4, 6/8), rhythmic durations (whole, half, quarter, eighth, sixteenth notes and rests, dotted half note and dotted quarter note)

Tempo - Allegro, Moderato, Largo, Presto

Melody - melodic phrase, treble and bass clef signs, pitch notation: letter names on grand staff, natural sign, sharp sign, flat sign

Harmony - triads (chords)

Form - AB, ABA, call and response

Timbre (tone color) - distinctive sounds of instruments, instrument families and voice parts (soprano, alto, tenor, bass)

Dynamics - crescendo, decrescendo, dynamic markings/symbols: *pp*, *p*, *mp*, *mf*, *f*, *ff*, *<*, *>*

AH-07-1.1.1

Students will analyze the use of elements in a variety of music.

DOK 3

Elements of music:

Rhythm - syncopation, time signature (2/4, 3/4, 4/4, 6/8), rhythmic durations (whole, half, quarter, eighth, sixteenth notes and rests, dotted half note and dotted quarter note)

Tempo - Allegro, Moderato, Largo, Presto

Melody - melodic phrase, treble and bass clef signs, pitch notation: letter names on grand staff, natural sign, sharp sign, flat sign

Harmony - triads (chords)

Form - AB, ABA, call and response

Timbre (tone color) - distinctive sounds of instruments, instrument families and voice parts (soprano, alto, tenor, bass)

Dynamics - crescendo, decrescendo, dynamic markings/symbols: *pp*, *p*, *mp*, *mf*, *f*, *ff*, *<*, *>*

AH-08-1.1.1

Students will compare or evaluate the use of elements in a variety of music.
DOK 3

Elements of music:

Rhythm - syncopation, time signature (2/4, 3/4, 4/4, 6/8), rhythmic durations (whole, half, quarter, eighth, sixteenth notes and rests, dotted half note and dotted quarter note)

Tempo - Allegro, Moderato, Largo, Presto

Melody - melodic phrase, treble and bass clef signs, pitch notation: letter names on grand staff, natural sign, sharp sign, flat sign

Harmony - triads (chords)

Form - AB, ABA, call and response

Timbre (tone color) - distinctive sounds of instruments, instrument families and voice parts (soprano, alto, tenor, bass)

Dynamics - crescendo, decrescendo, dynamic markings/symbols: *pp*, *p*, *mp*, *mf*, *f*, *ff*, *<*, *>*

AH-06-4.4.1

Students will create art for specific purposes using the elements of art and principles of design to communicate ideas.

AH-07-4.4.1

Students will create art for specific purposes using the elements of art and principles of design to communicate ideas.

AH-08-4.4.1

Students will create art for specific purposes using the elements of art and principles of design to communicate ideas.

High School

Arts & Humanities

AH-HS-1.1.1

Students will analyze or evaluate the use of elements of music in musical compositions.

DOK 3

(Incorporates prior knowledge about elements from primary through 8th grade)

Elements of music:

Rhythm, Melody, Form (rondo, theme and variations, musical forms of opera: overture, aria, recitative, movements of the classical symphony - four movements in typical sequence: movement 1-fast dramatic movement, movement 2-lyrical slow movement, movement 3-a dance-like movement [e.g., minuet or scherzo], movement 4-a brilliant or heroic fast movement), Timbre, Harmony, Tempo, Dynamics

Visual Arts